

METHOD AND APPARATUS FOR AN INCREMENTAL UPDATE
OF A LONGEST PREFIX MATCH LOOKUP TABLE

ABSTRACT OF THE DISCLOSURE

A method and apparatus for performing an incremental update of a lookup table
5 while the lookup table is available for searching is presented. To add or delete a route, a
second set of routes is stored in a second memory space in the lookup table, while
access is provided to the first set of routes stored in a first memory space in the lookup
table. Access is provided to the first memory space through a first pointer stored in a
subtree entry. After storing the second set of routes in the second memory space, access
10 is switched to the first set of routes in the first memory space by replacing the first
pointer stored in the subtree entry with a second pointer to the second memory space.